

February 2015 Climate Review for Puerto Rico and the U.S. Virgin Islands

... Based on data received until Feb 15th...

SAN JUAN



Synopsis

A generally fair and mainly stable weather pattern prevailed across the local islands throughout most of the period. However, trade wind showers were observed from time to time across the forecast area. These showers were enhanced sporadically by favorable upper level dynamics. Nevertheless, significant rainfall accumulations in a short period of time were not detected across Puerto Rico or Saint Croix. During the late evening hours of Feb 13th as well as in the early morning hours of the 14th, an impressive rainfall amount of 11.04 inches was observed at Cyril E. King AP. This isolated event was associated with an induced surface trough that moved across the area.

An average rainfall total of 4.15 inches was measured across mainland PR, which is 1.49 inches above normal. In terms of temperature, the islandwide mean temperature was 75.1°F which is approximately 1.8 °F warmer than the 30-year average. In fact February 2015 ended as the 2nd warmest February on record islandwide. The highest maximum temperature recorded this month was 92°F at Rio Piedras Substation on Feb 24th, and the lowest minimum temperature was 50°F on Feb 25th at Toro Negro Forest.

Statistically, the average maximum temperature at the Luis Muñoz Marín International Airport (TJSJ) in San Juan Puerto Rico was approximately 1.2°F warmer than the 30-year average. The average temperature was below normal for 11% of the month; while above normal temperatures were observed 79% of the month. The average minimum temperature at TJSJ was 73.3°F, which is 1.3°F above normal in respect to the 30 year average. Across the U.S. Virgin Islands, the mean temperature at Henry E. Rohlsen Airport (TISX) in Saint Croix and Cyril King Airport (TIST) in Saint Thomas was 79.0 and 78.5°F, which is 0.8 above and 0.3°F below normal respectively. In terms of precipitation, a rainfall total of 3.27 inches were reported at TJSJ, which is 0.88 inches above normal. February 2015 produced 16 days of measurable rain at TJSJ, which means 57% of days where 0.01 inch or more accumulated. Meanwhile, 16 and 9 days of measurable rain were reported at TIST and TISX, resulting in 57 and 32% of the days where 0.01 inch or more accumulated.





Data retrieved from AHPS, RAWs, CoCoRaHS, COOP stations and primary climatological data sites

RAINFALL

Islandwide climate record period: 1940 to 2015

San Juan Metro Area climate record period: 1898 to 2015 (Primary climatological site)

Cyril E. King Airport/St Thomas climate record period: 1953 to 2015 (Primary climatological site)

Henry E. Rohlsen Airport/St Croix climate record period: 1951 to 2015 (Primary climatological site)

Following WMO criteria: Less than 10% of missing values



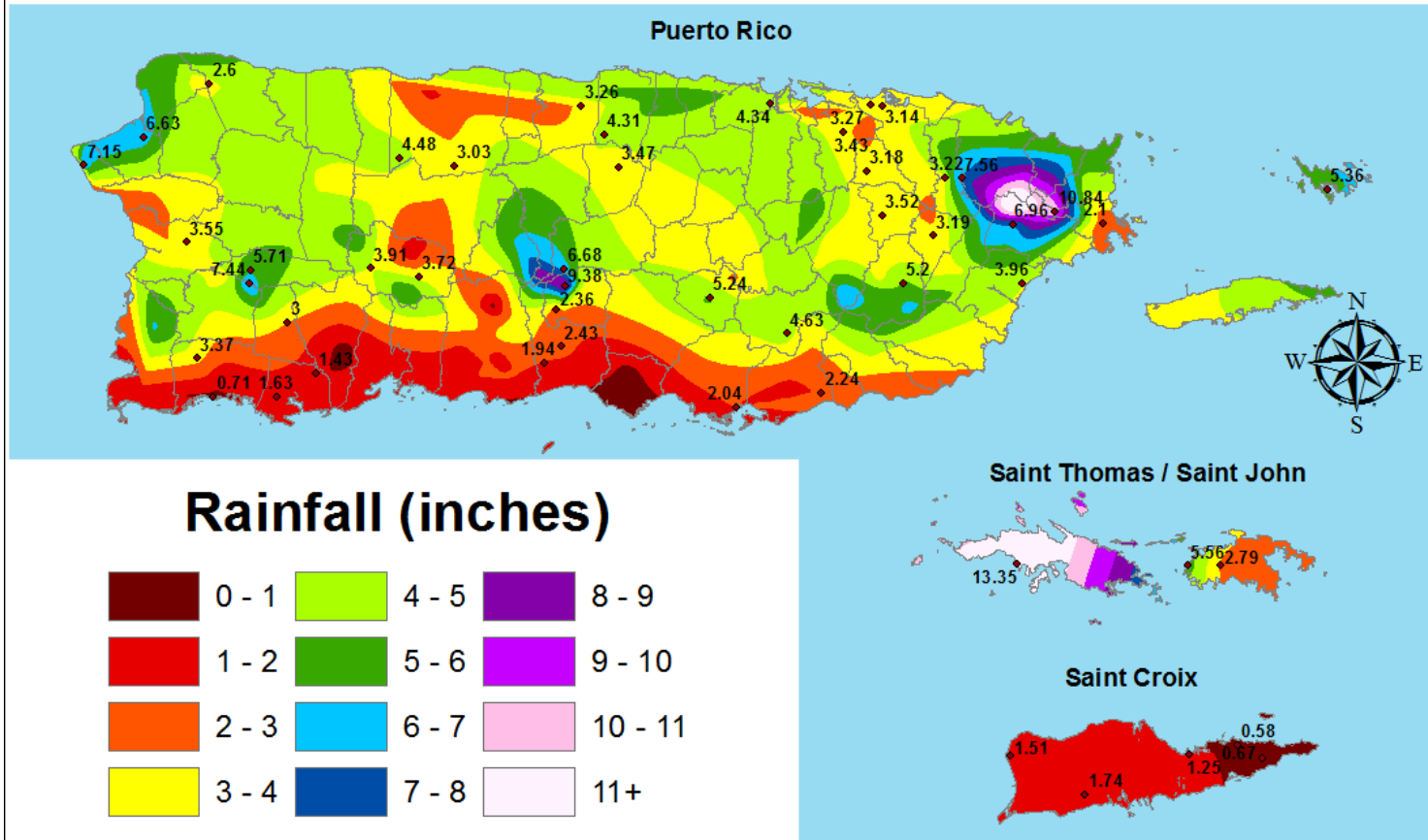
Click on image to enlarge



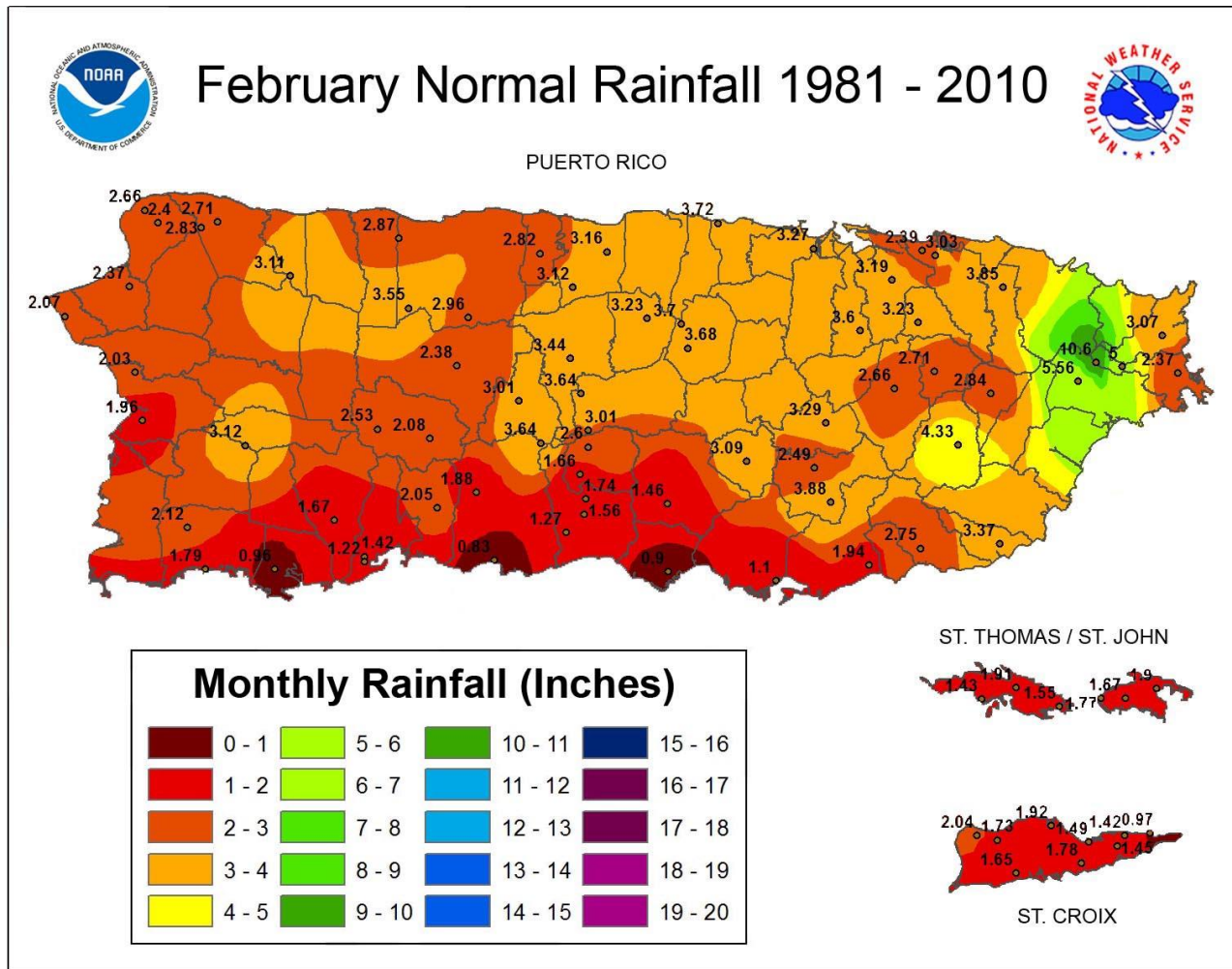
2015 February Observed Rainfall

Data Source: COOP, RAWS, CoCoRaHS
National Weather Service WFO San Juan

Data is Preliminary



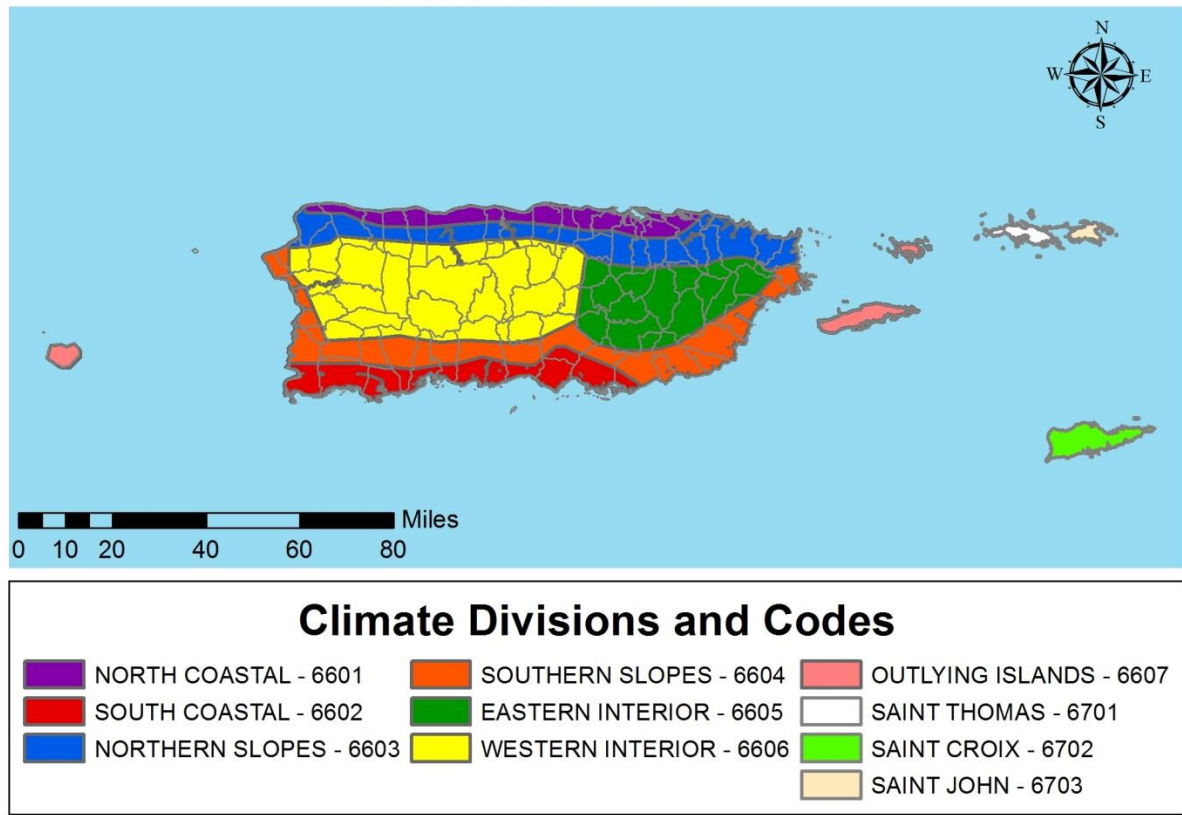
http://www.srh.noaa.gov/sju/?n=pr_usvi_normals





2015 Average Rainfall Accumulation per Climate Zones

Puerto Rico and U.S. Virgin Islands Climate Divisions



2015 Average Rainfall Accumulation per Climate Zones

North Coastal	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
OBSERVED	3.98	3.81	---	---	---	---	---	---	---	---	---	---
NORMAL	4.06	2.96	---	---	---	---	---	---	---	---	---	---
%PON PER MONTH	98	129	---	---	---	---	---	---	---	---	---	---
ACCUMULATED	3.98	7.79	---	---	---	---	---	---	---	---	---	---
NORMAL												
ACCUMULATION	4.06	7.02	---	---	---	---	---	---	---	---	---	---
% PON ACCUMULATED	98	111	---	---	---	---	---	---	---	---	---	---

South Coastal	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
OBSERVED	1.92	1.85	---	---	---	---	---	---	---	---	---	---
NORMAL	1.62	1.45	---	---	---	---	---	---	---	---	---	---
%PON PER MONTH	119	128	---	---	---	---	---	---	---	---	---	---
ACCUMULATED	1.92	3.77	---	---	---	---	---	---	---	---	---	---
NORMAL												
ACCUMULATION	1.62	3.07	---	---	---	---	---	---	---	---	---	---
% PON ACCUMULATED	119	123	---	---	---	---	---	---	---	---	---	---

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2015 Average Rainfall Accumulation per Climate Zones

Northern Slopes	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
OBSERVED	4.32	3.80	---	---	---	---	---	---	---	---	---	---
NORMAL	4.20	3.03	---	---	---	---	---	---	---	---	---	---
%PON PER MONTH	103	125	---	---	---	---	---	---	---	---	---	---
ACCUMULATED	4.32	8.12	---	---	---	---	---	---	---	---	---	---
NORMAL	4.20	7.23	---	---	---	---	---	---	---	---	---	---
ACCUMULATION	4.20	7.23	---	---	---	---	---	---	---	---	---	---
% PON ACCUMULATED	103	112	---	---	---	---	---	---	---	---	---	---

Southern Slopes	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
OBSERVED	2.39	2.84	---	---	---	---	---	---	---	---	---	---
NORMAL	2.00	1.86	---	---	---	---	---	---	---	---	---	---
%PON PER MONTH	120	153	---	---	---	---	---	---	---	---	---	---
ACCUMULATED	2.39	5.23	---	---	---	---	---	---	---	---	---	---
NORMAL	2.00	3.86	---	---	---	---	---	---	---	---	---	---
ACCUMULATION	2.00	3.86	---	---	---	---	---	---	---	---	---	---
% PON ACCUMULATED	120	135	---	---	---	---	---	---	---	---	---	---

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2015 Average Rainfall Accumulation per Climate Zones

Eastern Interior	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
OBSERVED	4.34	5.83	---	---	---	---	---	---	---	---	---	---
NORMAL	4.69	3.92	---	---	---	---	---	---	---	---	---	---
%PON PER MONTH	93	149	---	---	---	---	---	---	---	---	---	---
ACCUMULATED	4.34	10.17	---	---	---	---	---	---	---	---	---	---
NORMAL	4.69	8.61	---	---	---	---	---	---	---	---	---	---
ACCUMULATION	4.69	8.61	---	---	---	---	---	---	---	---	---	---
% PON ACCUMULATED	93	118	---	---	---	---	---	---	---	---	---	---

Western Interior	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
OBSERVED	3.60	5.06	---	---	---	---	---	---	---	---	---	---
NORMAL	3.90	2.75	---	---	---	---	---	---	---	---	---	---
%PON PER MONTH	92	184	---	---	---	---	---	---	---	---	---	---
ACCUMULATED	3.60	8.66	---	---	---	---	---	---	---	---	---	---
NORMAL	3.90	6.65	---	---	---	---	---	---	---	---	---	---
ACCUMULATION	3.90	6.65	---	---	---	---	---	---	---	---	---	---
% PON ACCUMULATED	92	130	---	---	---	---	---	---	---	---	---	---

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2015 Average Rainfall Accumulation per Climate Zones

Mainland PR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
OBSERVED	3.45	4.15	---	---	---	---	---	---	---	---	---	---
NORMAL	3.41	2.66	---	---	---	---	---	---	---	---	---	---
%PON PER MONTH	101	156	---	---	---	---	---	---	---	---	---	---
ACCUMULATED	3.45	7.60	---	---	---	---	---	---	---	---	---	---
NORMAL												
ACCUMULATION	3.41	6.07	---	---	---	---	---	---	---	---	---	---
% PON ACCUMULATED	101	125	---	---	---	---	---	---	---	---	---	---

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2015 Average Rainfall Accumulation per Climate Zones

Saint Thomas/Saint John	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
OBSERVED	1.46	3.92	---	---	---	---	---	---	---	---	---	---
NORMAL	2.72	1.71	---	---	---	---	---	---	---	---	---	---
%PON PER MONTH	54	229	---	---	---	---	---	---	---	---	---	---
ACCUMULATED	1.46	5.38	---	---	---	---	---	---	---	---	---	---
NORMAL	2.72	4.43	---	---	---	---	---	---	---	---	---	---
ACCUMULATION	2.72	4.43	---	---	---	---	---	---	---	---	---	---
% PON ACCUMULATED	54	121	---	---	---	---	---	---	---	---	---	---

Saint Croix	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
OBSERVED	2.17	1.66	---	---	---	---	---	---	---	---	---	---
NORMAL	2.00	1.61	---	---	---	---	---	---	---	---	---	---
%PON PER MONTH	109	103	---	---	---	---	---	---	---	---	---	---
ACCUMULATED	2.17	3.83	---	---	---	---	---	---	---	---	---	---
NORMAL	2.00	3.61	---	---	---	---	---	---	---	---	---	---
ACCUMULATION	2.00	3.61	---	---	---	---	---	---	---	---	---	---
% PON ACCUMULATED	109	106	---	---	---	---	---	---	---	---	---	---

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February 2015 in Perspective

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Top 5 **Wettest**

Top 5 **Driest**

Islandwide

Year	Inches
Feb-50	7.63
Feb-54	5.43
Feb-95	4.90
Feb-91	4.89
Feb-40	4.72

Year	Inches
Feb-83	0.69
Feb-41	0.92
Feb-77	0.96
Feb-51	1.03
Feb-75	1.04

Mean Rainfall:
2.66 inches

Total rainfall
accumulation:
4.15 inches

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February 2015 in Perspective

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Top 5 **Wettest**

Top 5 **Driest**

San Juan Metro Area

Year	Inches
1950	7.90
1918	7.84
1954	7.34
1982	6.69
1904	6.48

Year	Inches
1941	0.05
1902	0.09
1983	0.20
1901	0.50
1993	0.51

Mean Rainfall:
2.39 inches

Total rainfall accumulation:
3.27 inches

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Top 5 **Wettest**

Cyril E. King Airport St Thomas

Year	Inches
2015	13.35
1954	3.96
1956	3.79
1983	3.31
1982	3.02

Top 5 **Driest**

Year	Inches
1987	0.42
1993	0.47
2010	0.52
1988	0.58
2008	0.60

Mean Rainfall:
1.43 inches

Feb 2015 ended as the **wettest Feb** and **6th wettest month** on record.

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February 2015 in Perspective

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Top 5 **Wettest**

Henry E. Rohlsen Airport St Croix

Year	Inches
1995	4.23
1988	3.59
1956	3.54
1976	3.51
1979	3.32

Top 5 **Driest**

Year	Inches
2005	0.11
1983	0.18
1986	0.30
2010	0.32
2013	0.61

Mean Rainfall:
1.65 inches

Total rainfall
accumulation:
1.74 inches

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February 2015 in Perspective

Wettest Days

Station	Inches	Date
ACEITUNA	6.00	2/8/2015
COLOSO	3.62	2/20/2015
TORO NEGRO FOREST	3.53	2/17/2015
CULEBRA HILL	2.20	2/14/2015
RINCON	2.12	2/5/2015
PALMA SOLA	2.09	2/16/2015
PARAISO	1.90	2/17/2015
MARICAO FISH HATCHERY	1.86	2/2/2015

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February 2015 Highlights for Primary Climatological Data Sites

Wettest Days

San Juan Metro Area

Inches	Date
0.67	2/13/2015
0.64	2/12/2015
0.55	2/21/2015
0.29	2/14/2015
0.22	2/16/2015

Cyril E. King AP/St Thomas

Inches	Date
8.73	2/14/2015
2.36	2/13/2015
0.92	2/21/2015
0.58	2/16/2015
0.24	2/8/2015

Henry E. Rohlsen AP/St. Croix

Inches	Date
0.51	2/21/2015
0.32	2/14/2015
0.27	2/22/2015
0.2	2/16/2015
0.16	2/12/2015

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Data retrieved from COOP stations and primary climatological data sites

TEMPERATURE

Islandwide climate record period: 1940 to 2015

San Juan Metro Area climate record period: 1898 to 2015 (Primary climatological site)

Cyril E. King Airport/St Thomas climate record period: 1953 to 2015 (Primary climatological site)

Henry E. Rohlsen Airport/St Croix climate record period: 1951 to 2015 (Primary climatological site)

Following WMO criteria: Less than 10% of missing values

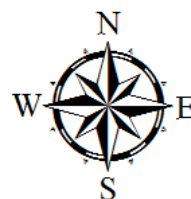
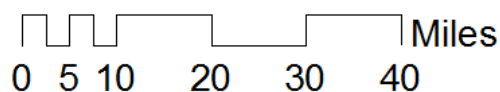
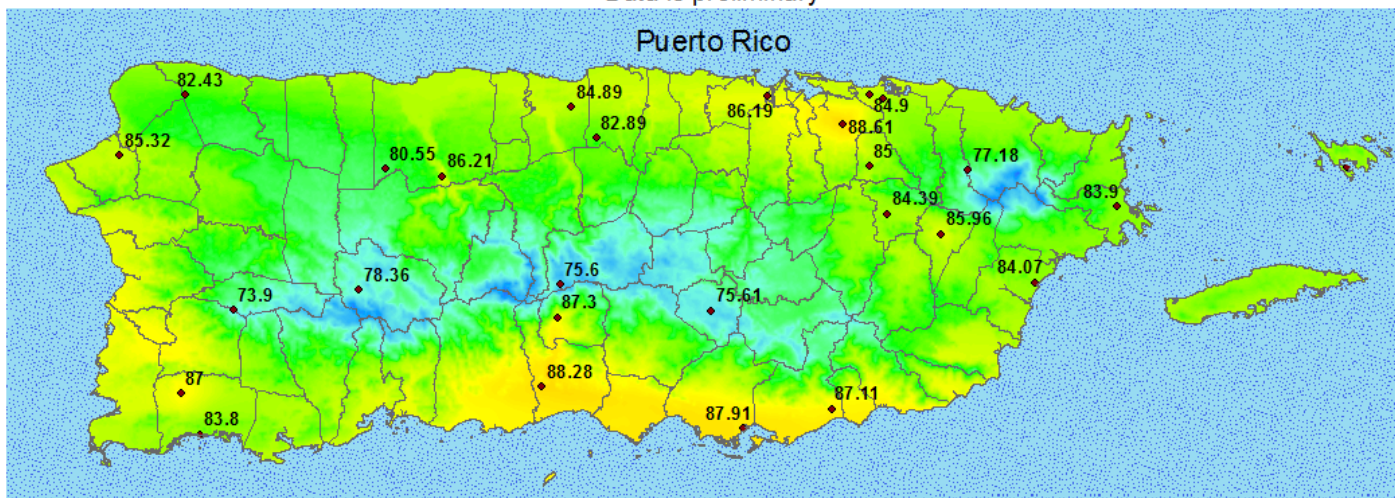




2015 February Mean Maximum Temperatures

National Weather Service WFO San Juan

Data is preliminary



Temperature Range °F

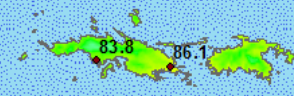


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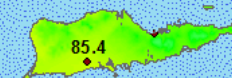
80

Low : 60

Saint Thomas / Saint John



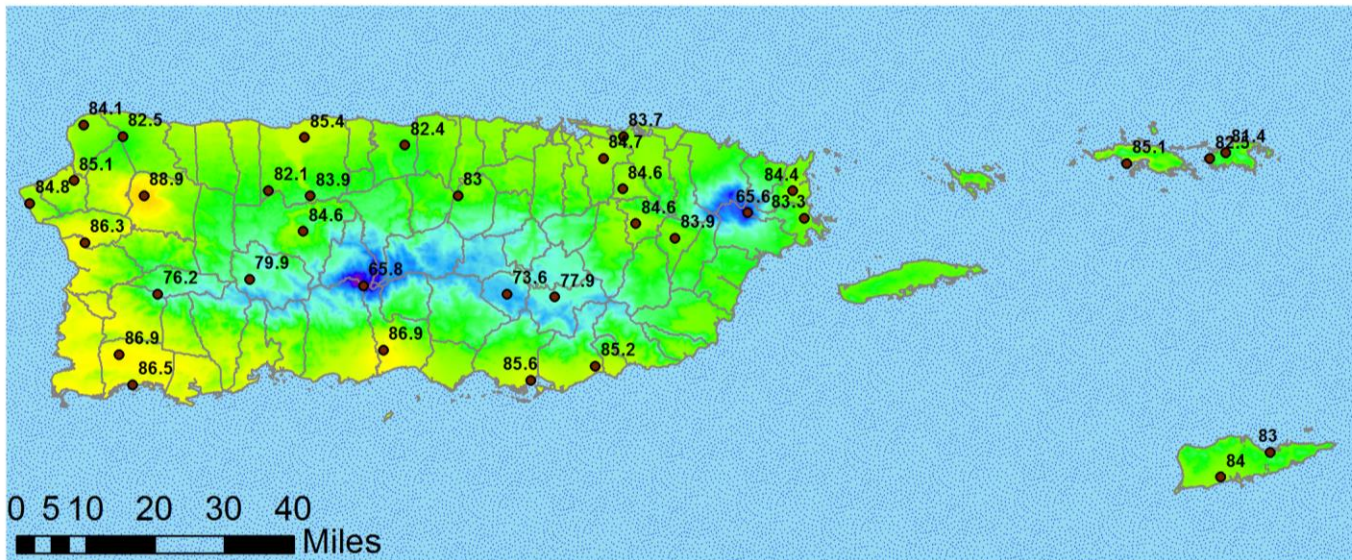
Saint Croix





February Normal Maximum Temperatures 1981-2010

National Weather Service WFO San Juan



Temperature Range °F



High : 100

80

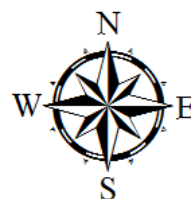
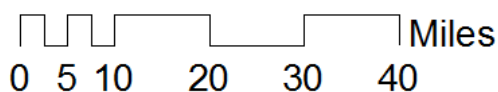
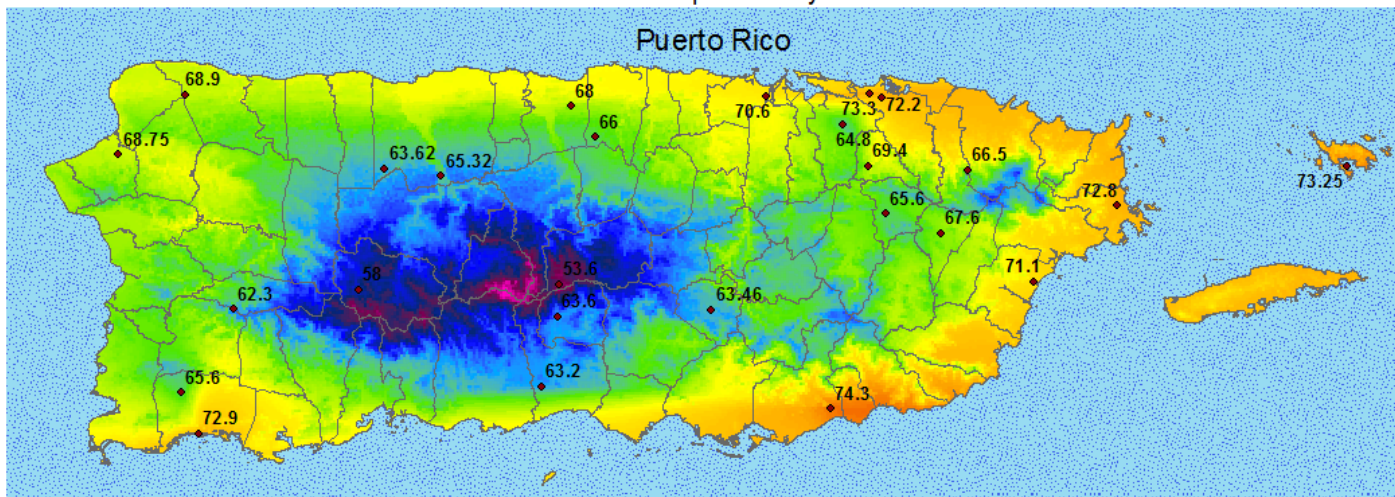
Low : 60





2015 February Mean Minimum Temperatures

National Weather Service WFO San Juan
Data is preliminary



Temperature Range °F

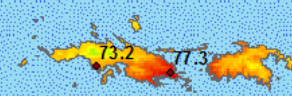


High : 80

65

Low : 50

Saint Thomas / Saint John



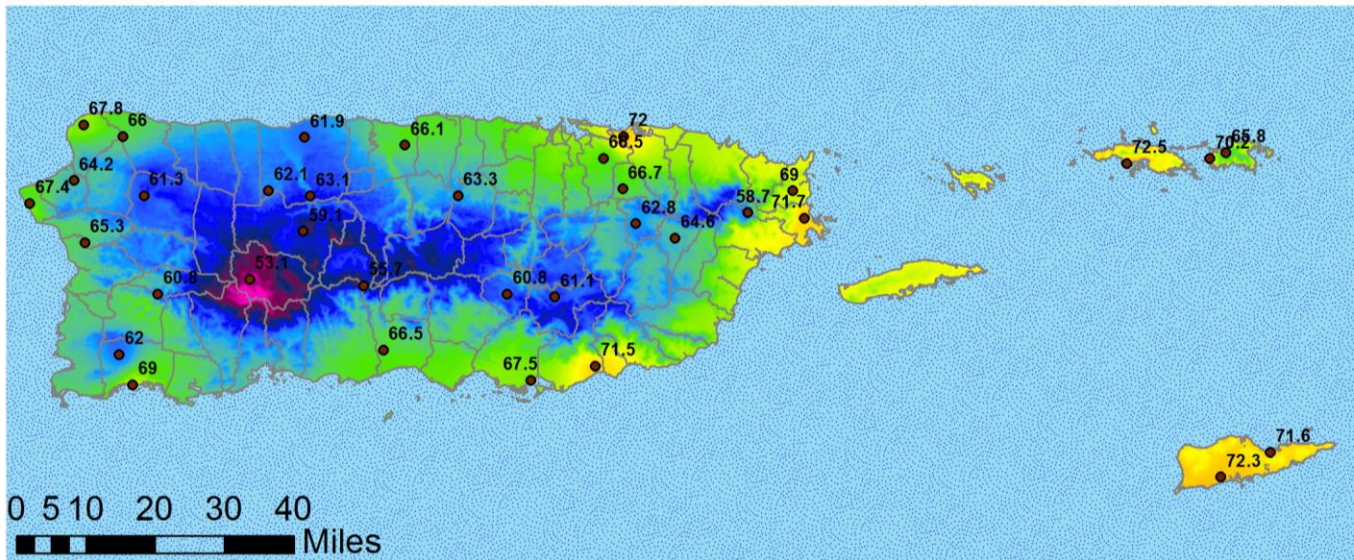
Saint Croix





February Normal Minimum Temperatures 1981-2010

National Weather Service WFO San Juan



Temperature Range °F



High : 80

65

Low : 50



February 2015 in Perspective:

Mean Avg. Temperature

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Top 5 Warmest

Top 5 Coolest

Islandwide

Year	°F
Feb-10	75.9
Feb-15	75.1
Feb-47	75.1
Feb-64	75.1
Feb-60	74.9

Year	°F
Feb-41	66.2
Feb-40	67.5
Feb-43	68.0
Feb-05	71.1
Feb-99	71.1

Mean Temperature:
73.3 °F

Feb 2015 mean temperature 74.9 °F.
Feb 2015 ended as the 2nd warmest Feb on record.

Following are not included because do not WMO meet criteria , 44, 56, 57, 59, 67, 69, 70, 79,80, 81, 82, 90, 06 and 07



February 2015 in Perspective: Mean Avg. Temperature

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Top 5 Warmest

Top 5 Coolest

San Juan Metro Area

Year	°F
2010	80.0
1983	79.9
2014	79.3
1981	79.3
1978	79.2

Year	°F
1951	73.3
1917	73.3
1925	73.4
1907	73.4
1950	73.6

Mean Temperature:
77.9 °F

Feb 2015 mean
temperature 79.1 °F

Feb 2015 ended as
the 6th warmest Feb
on record.



February 2015 in Perspective: Mean Avg. Temperature

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Top 5 Warmest

Cyril E. King Airport St Thomas

Year	°F
1994	81.2
1995	80.9
1993	80.5
1996	80.4
2010	80.1

Top 5 Coolest

Year	°F
1956	75.8
1999	76.2
1955	76.2
1954	76.2
1957	76.6

Mean Temperature:
78.8 °F

Feb 2015 mean
temperature 78.5 °F



February 2015 in Perspective: Mean Avg. Temperature

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Top 5 Warmest

Henry E. Rohlsen Airport St Croix

Year	°F
1994	80.2
1998	79.9
1988	79.5
2014	79.4
1995	79.4

Top 5 Coolest

Year	°F
2012	74.8
1956	76.0
1999	76.4
1952	76.4
1982	76.5

Mean Temperature:
78.2 °F

Feb 2015 mean
temperature 79.0 °F

Feb 2015 ended as
the **6th warmest Feb**
on record.



February 2015 Highlights

Highest **Maximum** Temps

Station	Value (°F)	Date
RIO PIEDRAS EXP STN	92	2/24/2015
TOA BAJA LEVITOWN	91	2/12/2015
SAN JUAN L M MARIN AP	91	2/11/2015
LAJAS SUBSTATION	90	2/25/2015
AGUIRRE	90	2/12/2015

Lowest **Minimum** Temps

Station	Value (°F)	Date
TORO NEGRO FOREST	50	2/25/2015
ADJUNTAS SUBSTN	53	2/25/2015
PONCE 4 E	58	2/2/2015
MARICAO 2 SSW	60	2/25/2015
LAJAS SUBSTATION	60	2/3/2015



2015 Highlights for Primary Climatological Data Sites

Winter

	Dec (2014)	Jan	Feb	Season
San Juan	---	3 rd warmest	6 th warmest	5 th warmest
Saint Thomas	---	---	wettest February and 6 th wettest month	wettest
Saint Croix	8 th wettest	14 th driest	6 th warmest	---

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LOOKING AHEAD TOWARD MARCH

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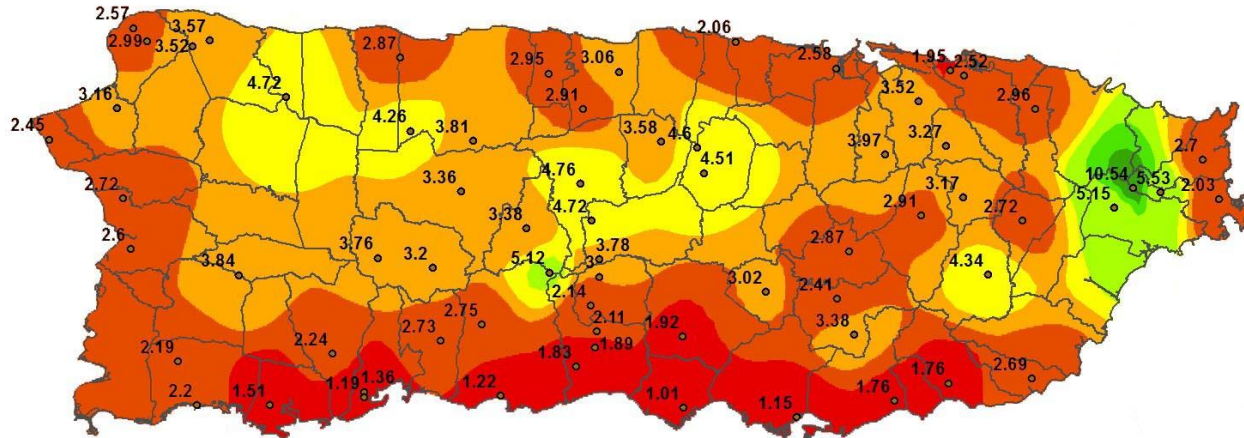




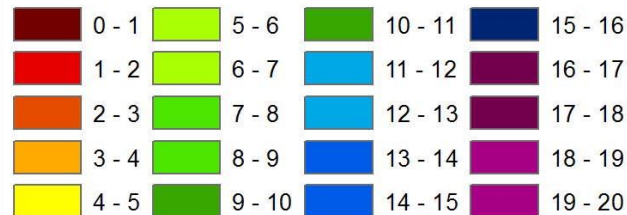
March Normal Rainfall 1981 - 2010



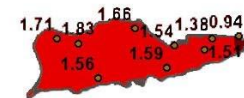
PUERTO RICO



Monthly Rainfall (Inches)



ST. THOMAS / ST. JOHN



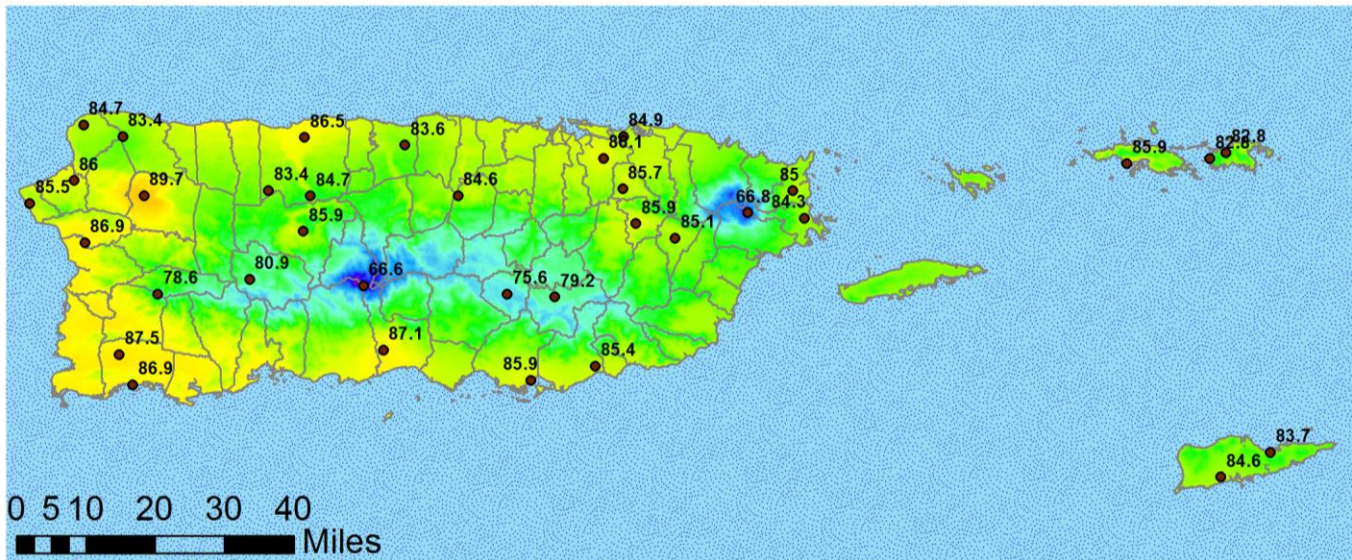
ST. CROIX





March Normal Maximum Temperatures 1981-2010

National Weather Service WFO San Juan



Temperature Range °F



High : 100

80

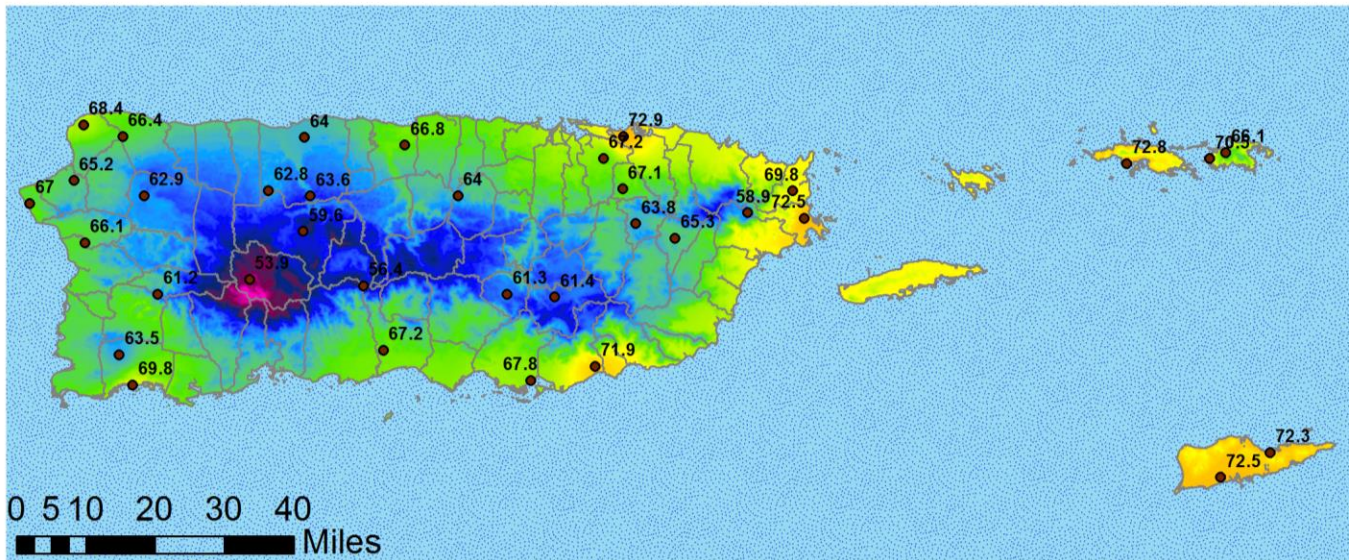
Low : 60





March Normal Minimum Temperatures 1981-2010

National Weather Service WFO San Juan



Temperature Range °F



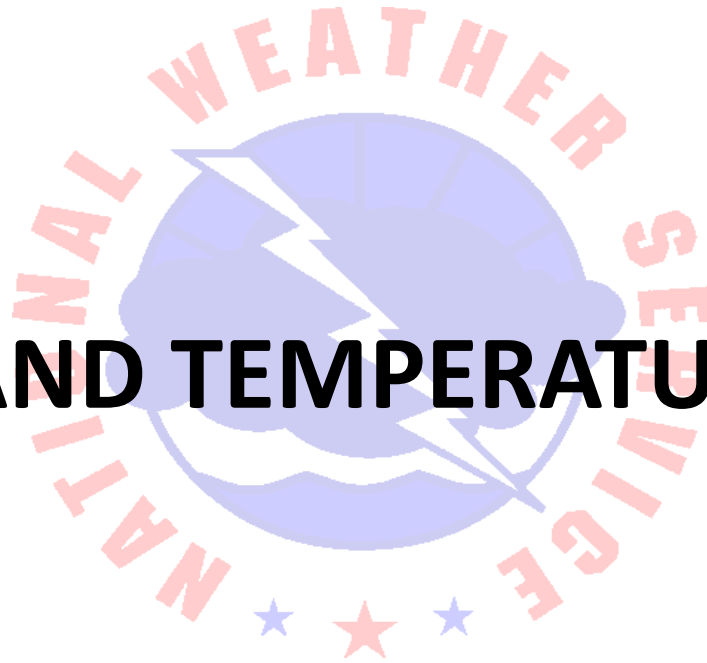
High : 80

65

Low : 50



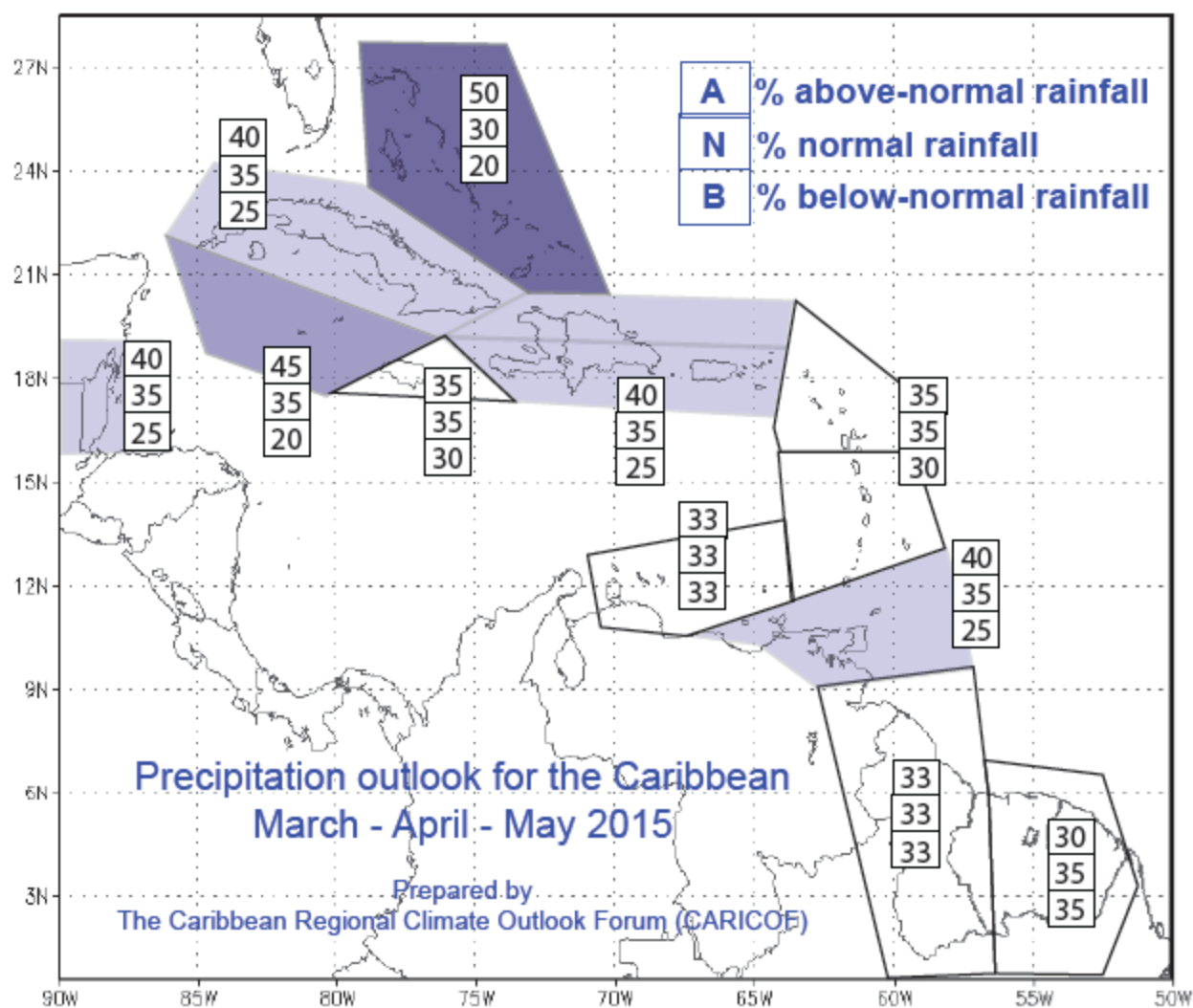
RAINFALL AND TEMPERATURE OUTLOOK



WFO

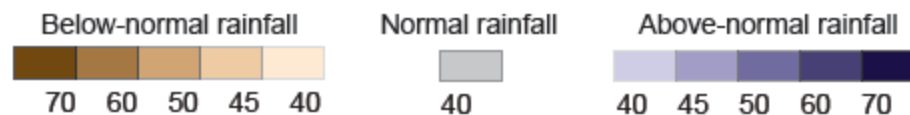
SAN JUAN

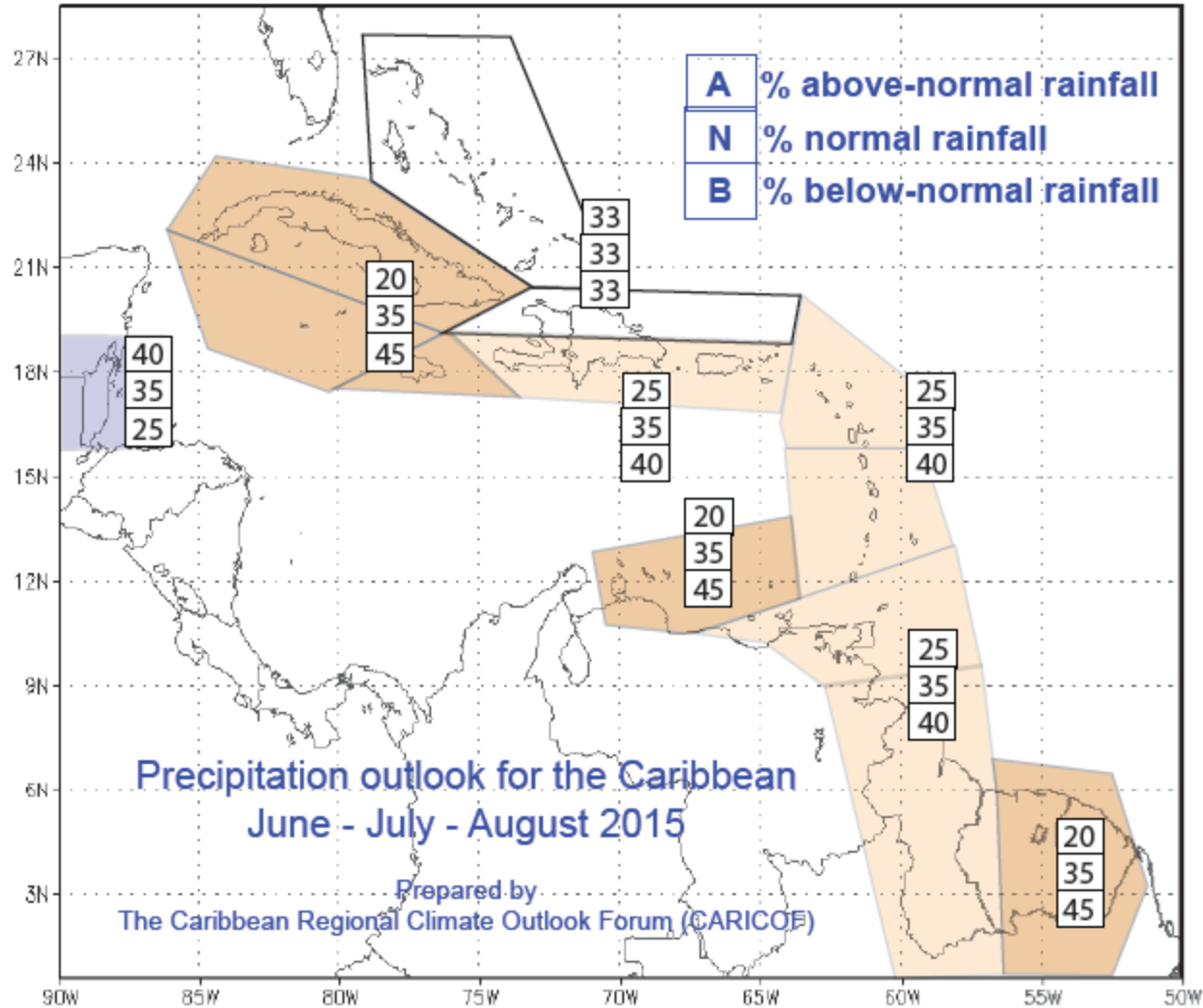




Probability (%) of Most Likely Category

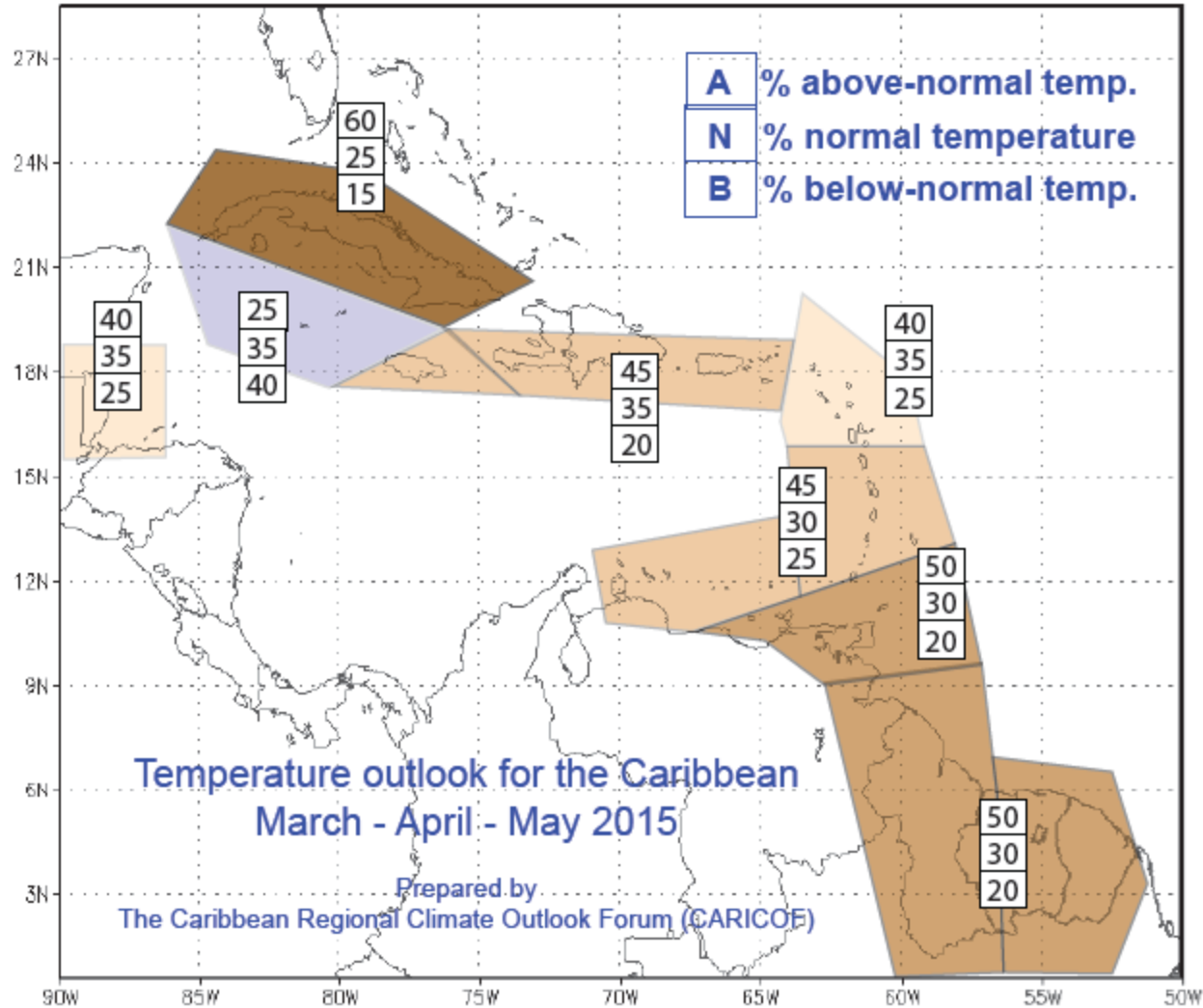
<http://www.cimh.edu.bb/?p=precipoutlook>





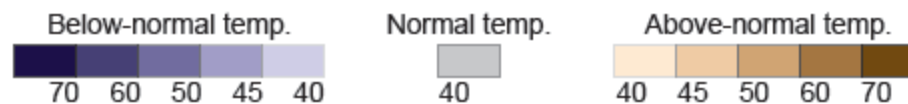
<http://www.cimh.edu.bb/?p=precipoutlook>

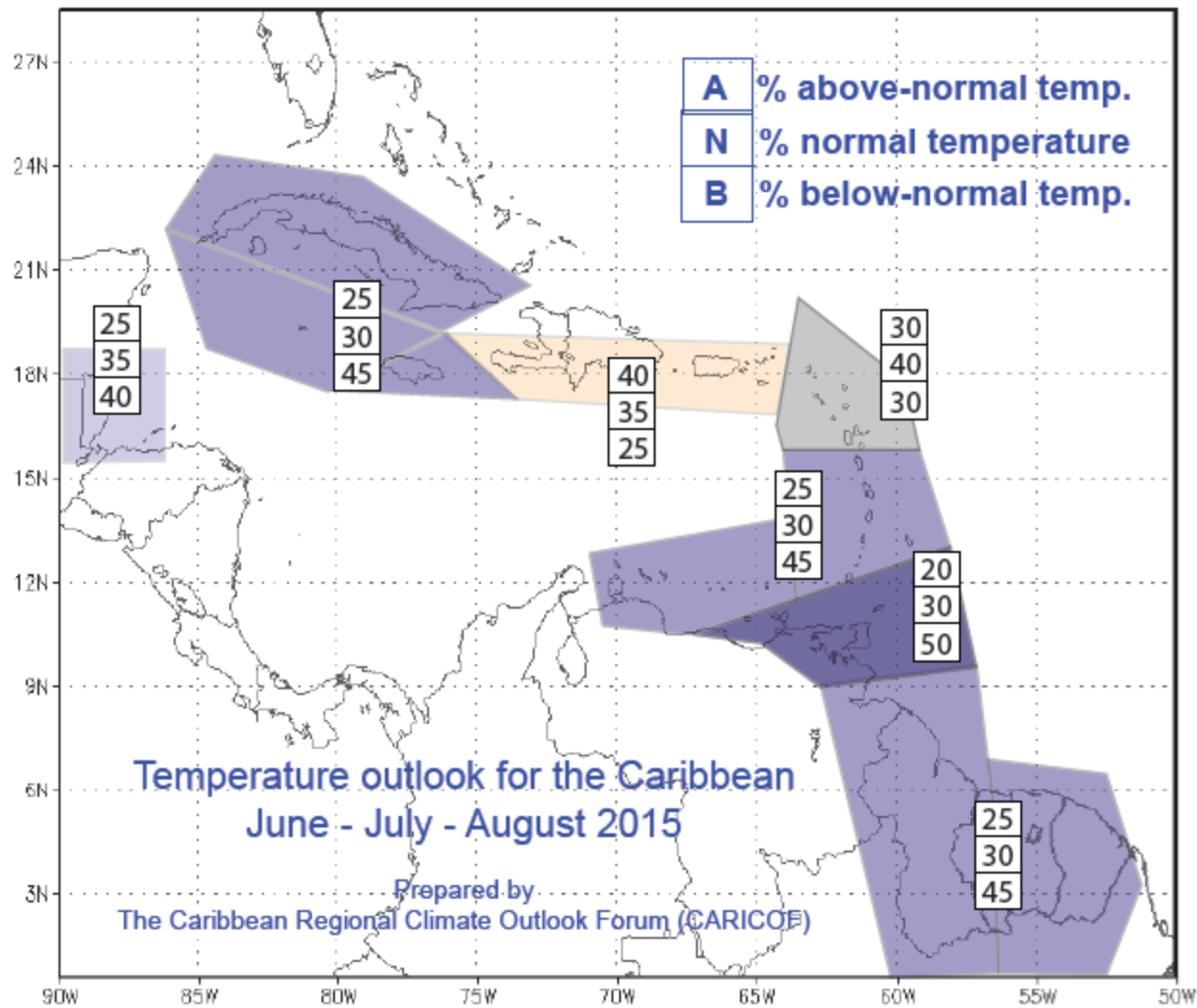




Probability (%) of Most Likely Category

<http://www.cimh.edu.bb/?p=precipoutlook>





Probability (%) of Most Likely Category

<http://www.cimh.edu.bb/?p=precipoutlook>

